



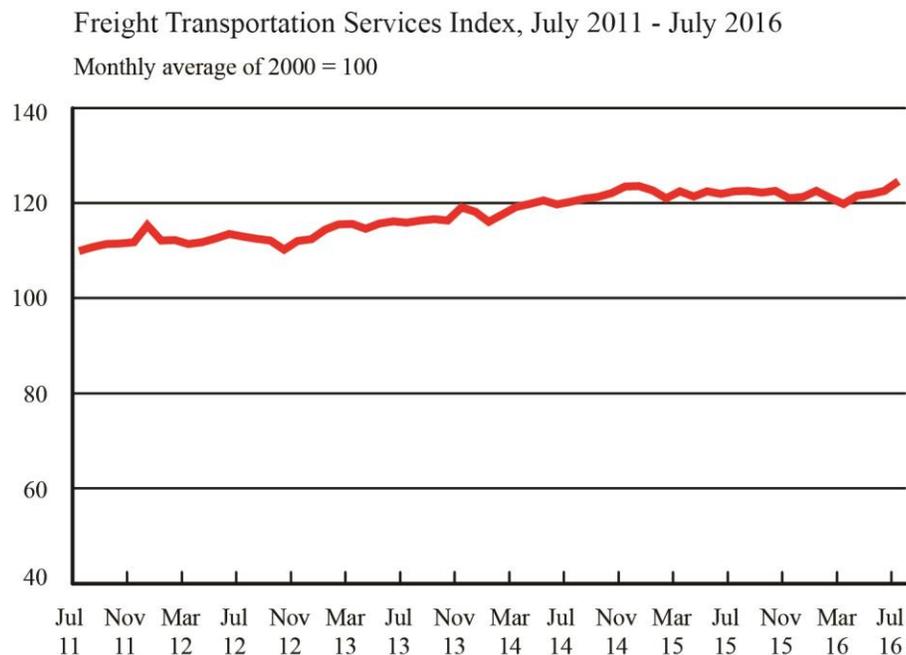
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July 2016 Freight Transportation Services Index (TSI)

The Freight Transportation Services Index (TSI), which is based on the amount of freight carried by the for-hire transportation industry, rose 1.6 percent in July from June, rising for the fourth consecutive month, according to the U.S. Department of Transportation's Bureau of Transportation Statistics (BTS). The July 2016 index level (124.6) was 31.6 percent above the April 2009 low during the most recent recession (Tables 1, 2, and 2A).



The level of freight shipments in July measured by the Freight TSI (124.6) reached its all-time high (Table 2A). BTS' TSI records begin in 2000. See historical [TSI data](#).

The June index was revised to 122.6 from 122.3. Monthly numbers for January through May were revised up slightly.

The Freight TSI measures the month-to-month changes in freight shipments by mode of transportation in tons and ton-miles, which are combined into one index. The index measures the output of the for-hire freight transportation industry and consists of data from for-hire trucking, rail, inland waterways, pipelines and air freight.

Analysis: The July Freight TSI increase of 1.6 percent from June was due to growth in trucking and rail carloads, while all other modes declined (data on individual modes is seasonally adjusted by BTS). The July increase was driven by growth in the mining (including oil and gas well drilling and servicing), utility and manufacturing sectors of the economy. The [Federal Reserve Board Industrial Production index](#) rose 0.7 percent in June. Housing starts were 2.1 percent above the June level, Personal Income was 0.4 percent above the June level, and employment grew by 255,000 jobs.

Trend: The 1.6 percent Freight TSI rise in July from June was the fourth consecutive monthly increase, reaching an all-time high of 124.6. The combined growth of 4.0 percent over the four months from March to July was the first time the TSI rose for four months in succession since December 2014. The 4.0 percent rise was the largest increase over a four-month period since February 2013. The new high exceeded the previous high (123.6) in December 2014 by 0.8 percent. The index has risen 31.6 percent since the low of 94.7 in April 2009. For additional historical data, go to [TSI data](#).

Index highs and lows: Freight shipments in July 2016 (124.6) were 31.6 percent higher than the recent low in April 2009 during the recession (94.7). The July 2016 level reached its all-time high (Table 1A).

Year to date: Freight shipments measured by the index were up 2.7 percent in July compared to the end of 2015 (Table 3).

Long-term trend: Freight shipments are up 13.4 percent in the five years from July 2011 and are up 11.3 percent in the 10 years from July 2006 (Table 5).

Same month of previous year: July 2016 freight shipments were up 1.7 percent from July 2015 (Tables 4, 5).

The TSI has three seasonally adjusted indexes that measure changes from the monthly average of the base year of 2000. The three indexes are freight shipments, passenger travel and a combined measure that merges the freight and passenger indexes. See [Seasonally-Adjusted Transportation Data](#) for numbers for individual modes. TSI includes data from 2000 to the present. Release of the August index is scheduled for Oct.13.

Passenger Index: The TSI for passengers rose 0.2 percent in July from its June level (Table 6). The Passenger TSI July 2016 level of 125.6 was 1.3 percent below the July 2015 level (Table 7). The index is up 8.9 percent in five years and up 13.5 percent in 10 years (Table 5). The passenger TSI measures the month-to-month changes in travel that involves the services of the for-hire passenger transportation sector. The seasonally adjusted index consists of data from air, local transit and intercity rail.

Combined Index: The combined freight and passenger TSI rose 1.1 percent in July from its June level (Table 8). The combined TSI July 2016 level of 125.0 was 0.7 percent above the July 2015 level (Table 9). The combined index is up 12.0 percent in five years and up 11.8 percent in 10 years (Table 5). The combined TSI merges the freight and passenger indexes into a single index.

Revisions: Monthly data has changed from previous releases due to the use of concurrent seasonal analysis, which results in seasonal analysis factors changing as each month's data are added.

BTS research has shown a clear relationship between economic cycles and the Freight and Passenger Transportation Services Indexes. See a [study of this relationship](#) using smoothed and detrended TSI data. Researchers who wish to compare TSI over time with other economic indicators, can use the [FRED database](#), which includes freight, passenger and combined TSI, and which makes it possible to easily graph TSI alongside the other series in that database. See [TSI data on FRED](#).

For a webinar on the TSI, see [Past Webinars](#). For a video explanation of the TSI, see [Overview of the Transportation Services Index](#). A BTS report explaining the TSI, [Transportation Services Index and the Economy](#), is available for download.

Table 1: Freight, Passenger and Combined Transportation Services Indexes since January 2016

Percent Change from Previous Month

(Seasonally Adjusted, Monthly Average of 2000 = 100)

	Freight		Passenger		Combined	
	Index	Pct. Change	Index	Pct. Change	Index	Pct. Change
January	122.6	1.1	123.3	-0.7	122.9	0.5
February	121.1	-1.2	123.9	0.5	122.0	-0.7
March	119.8	-1.1	122.3	-1.3	120.7	-1.1
April	121.6	1.5	124.0	1.4	122.4	1.4
May	121.9	0.2	124.3	0.2	122.7	0.2
June	122.6	0.6	125.3	0.8	123.6	0.7
July	124.6	1.6	125.6	0.2	125.0	1.1

SOURCE: Bureau of Transportation Statistics

NOTE: Percent changes based on numbers prior to rounding.

Table 1A: Annual High and Low Points in Freight Transportation Services Index, 2009-2016

Year	Month	Peak	Month	Bottom
2009	December	101.5	April	94.7
2012	June	113.5	October	110.2
2013	November	119.1	January	114.4
2014	December	123.6	January	116.1
2015	January	122.7	February, November	121.0
2016 (thru June)	July	124.6	March	119.8

SOURCE: Bureau of Transportation Statistics

Table 2: Freight Transportation Services Index Monthly Changes, 2013-2016
Percent change from previous month

	2013	2014	2015	2016
	% Change	% Change	% Change	% Change
January	1.8	-1.8	-0.7	1.1
February	1.0	1.3	-1.4	-1.2
March	0.1	1.4	1.2	-1.1
April	-0.9	0.5	-0.9	1.5
May	1.0	0.7	0.9	0.2
June	0.4	-0.7	-0.5	0.6
July	-0.3	0.5	0.5	1.6
August	0.3	0.5	0.1	
September	0.3	0.3	-0.3	
October	-0.3	0.7	0.3	
November	2.4	1.1	-1.3	
December	-0.8	0.1	0.2	

SOURCE: Bureau of Transportation Statistics

Table 2A: Freight Transportation Services Index by Month, 2013-2016

	2013	2014	2015	2016
January	114.4	116.1	122.7	122.6
February	115.5	117.6	121.0	121.1
March	115.6	119.2	122.5	119.8
April	114.6	119.8	121.4	121.6
May	115.7	120.6	122.5	121.9
June	116.2	119.7	121.9	122.6
July	115.9	120.3	122.5	124.6
August	116.3	120.9	122.6	
September	116.6	121.3	122.2	
October	116.3	122.1	122.6	
November	119.1	123.5	121.0	
December	118.2	123.6	121.3	

SOURCE: Bureau of Transportation Statistics

Table 3: Freight, Passenger and Combined Transportation Services Indexes Year-to-Date Change, 2007-2016
Percent change to July from December of the previous year

Year	Freight	Passenger	Combined
2007	-1.9	2.3	-0.6
2008	0.2	-0.1	0.1
2009	-2.1	-0.4	-1.6
2010	5.3	1.5	4.1
2011	1.0	1.9	1.3
2012	-2.0	-0.7	-1.6
2013	3.1	0.7	2.4
2014	1.8	1.9	1.8
2015	-0.9	5.3	1.1
2016	2.7	1.1	2.2

SOURCE: Bureau of Transportation Statistics

Table 4: Freight Transportation Services Index from Year-to-Year Percent Change in the July Freight TSI
(Monthly average of 2000 = 100)

	July Freight TSI	Percent change from same month previous year
2007	108.6	-2.9
2008	110.9	2.1
2009	98.2	-11.5
2010	106.9	8.9
2011	109.9	2.8
2012	113.0	2.8
2013	115.9	2.6
2014	120.3	3.8
2015	122.5	1.8
2016	124.6	1.7

SOURCE: Bureau of Transportation Statistics

NOTE: Percent changes based on numbers prior to rounding.

**Table 5: Transportation Services Indexes from Previous Years
Percent Change to 2016 (July to July)**

Since July ...	Duration in years	Freight TSI Percent change to July 2016	Passenger TSI Percent change to July 2016	Combined TSI Percent change to July 2016
2015	1	1.7	-1.3	0.7
2014	2	3.6	4.7	3.9
2013	3	7.5	7.6	7.6
2012	4	10.3	9.3	10.0
2011	5	13.4	8.9	12.0
2010	6	16.6	12.0	15.2
2009	7	26.9	14.2	22.9
2008	8	12.4	8.1	10.9
2007	9	14.7	8.1	12.5
2006	10	11.3	13.5	11.8

SOURCE: Bureau of Transportation Statistics

**Table 6: Passenger Transportation Services Index Monthly Changes, 2013-2016
Percent change from previous month**

	2013 % Change	2014 % Change	2015 % Change	2016 % Change
January	1.0	0.0	-0.7	-0.7
February	-0.3	-0.3	-1.3	0.5
March	-0.5	2.2	2.4	-1.3
April	0.7	-0.1	0.3	1.4
May	0.0	0.6	0.2	0.2
June	0.6	-0.7	0.3	0.8
July	-0.8	0.3	4.0	0.2
August	0.7	0.3	-3.9	
September	-0.1	-0.2	0.4	
October	0.2	0.3	1.2	
November	0.8	-0.7	-1.0	
December	-0.6	1.0	0.9	

SOURCE: Bureau of Transportation Statistics

**Table 7: Passenger Transportation Services Index from Year-to-Year
Percent change in the July Passenger TSI
(Monthly average of 2000 = 100)**

	July Passenger TSI	Percent change from same month previous year
2007	116.2	5.0
2008	116.2	0.0
2009	110.0	-5.3
2010	112.1	1.9
2011	115.3	2.9
2012	114.9	-0.3
2013	116.7	1.6
2014	120.0	2.8
2015	127.2	6.0
2016	125.6	-1.3

SOURCE: Bureau of Transportation Statistics

NOTE: Percent changes based on numbers prior to rounding.

**Table 8: Combined Transportation Services Index Monthly Changes, 2013-2016
Percent change from previous month**

	2013 % Change	2014 % Change	2015 % Change	2016 % Change
January	1.5	-1.3	-0.7	0.5
February	0.6	0.8	-1.3	-0.7
March	0.0	1.6	1.6	-1.1
April	-0.4	0.3	-0.5	1.4
May	0.7	0.7	0.7	0.2
June	0.4	-0.7	-0.2	0.7
July	-0.4	0.4	1.6	1.1
August	0.5	0.4	-1.2	
September	0.1	0.2	-0.1	
October	-0.2	0.6	0.6	
November	2.0	0.5	-1.2	
December	-0.7	0.4	0.5	

SOURCE: Bureau of Transportation Statistics

**Table 9: Combined Transportation Services Index from Year-to-Year
 Percent change in the July Combined TSI
 (Monthly average of 2000 = 100)**

	July Combined TSI	Percent change from same month previous year
2007	111.1	-0.6
2008	112.7	1.4
2009	101.7	-9.8
2010	108.5	6.7
2011	111.6	2.9
2012	113.6	1.8
2013	116.2	2.3
2014	120.3	3.5
2015	124.1	3.2
2016	125.0	0.7

SOURCE: Bureau of Transportation Statistics

NOTE: Percent changes based on numbers prior to rounding.

Brief Explanation of the TSI

The Transportation Services Index (TSI) is a measure of the month-to-month changes in the output of services provided by the for-hire transportation industries. The freight index measure changes in freight shipments while the passenger index measures changes in passenger travel.

The TSI tells us how the output of transportation services has increased or decreased from month to month. The index can be examined together with other economic indicators to produce a better understanding of the current and future course of the economy. The movement of the index over time can be compared with other economic measures to understand the relationship of changes in transportation output to changes in Gross Domestic Product (GDP).

The freight transportation index consists of:

For-hire trucking,

Railroad freight services (including rail based intermodal shipments such as containers on flat cars),

Inland waterways transportation,

Pipeline transportation (including principally petroleum and petroleum products and natural gas), and

Air freight.

The index does not include international or coastal waterborne movements, private trucking, courier services, or the US Postal Service.

The passenger transportation index consists of:

Local transit,

Intercity passenger rail, and

Passenger air transportation.

The index does not include intercity bus, sightseeing services, ferry services, taxi service, private automobile usage, or bicycling and other non-motorized transportation.